

## LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

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### **Comprehensive Listing of Mitigation Measures Proposed for the Project**

The Project Applicant will be responsible for the implementation of all described mitigation measures, as well as related measures included as part of the Project design or identified during permitting efforts.

#### **Transportation/Circulation**

To address Project-related and cumulative traffic demands, the Project proposes to construct Montecito Ranch Road, which would connect Ash Street to Montecito Way. In addition, it was assumed that off-site roadway improvements would include establishing a uniform pavement width of 40 feet curb-to-curb within a 60-foot-wide right-of-way for Ash Street, Montecito Way, and Montecito Road as part of Project design. Where the Project provides roadway improvements that also benefit other future (cumulative) projects, a reimbursement agreement and/or credit toward the Project's fair share of other transportation improvements to mitigate cumulative impacts would be defined working with County staff and implemented through the County's adopted TIF program. Identified fair share contributions of the Proposed Project toward transportation improvements to mitigate cumulative impacts would be accomplished through payments into the TIF program or credit against TIF fees based on the cost of improvements constructed by the Project, beyond the Project's fair share of such improvements. Table 2.2-9 provides a summary of the mitigation and provides information about when Project mitigation would be required and who would be responsible.

Preliminary traffic signal warrant analyses were completed for each intersection that could potentially be signalized, including Pine Street/Ash Street, Pine Street/Olive Street, Montecito Way/Montecito Road, and SR 67/Archie Moore Road. These analyses are provided in Appendix M of the TIA (EIR Appendix B). Preliminary traffic warrants were met at all analyzed intersections, except for Montecito Way/Montecito Road. Signalizations would occur once the County and Caltrans determine that warrants are met.

In addition, the following measures are required to mitigate Project-related traffic impacts to below a level of significance:

#### **Mitigation for Significant Impact Nos. 2.1.3c, 2.1.4c and 2.1.4k**

The following measure is required to mitigate the Project-related direct and cumulative impacts to the intersection of Pine Street/Main Street:

- The Project Applicant shall restripe the northern leg of the intersection of Pine Street/Main Street to provide a southbound to westbound right-turn/through lane or an eastbound left-turn lane onto Main Street prior to occupancy of the 281<sup>st</sup> house and to the satisfaction of the Director of DPW. The Project Applicant also shall make a payment into the TIF program prior to the issuance of the first occupancy permit.

Mitigation for Significant Impact Nos. 2.1.3d, 2.1.4d, and 2.1.4l

The following measure is required to mitigate the Project-related direct and cumulative impacts to the intersection of Main Street/Montecito Road:

- The Project Applicant shall acquire right-of-way and widen and restripe the northern leg of the intersection of Main Street/Montecito Road to provide a westbound right-turn lane onto Main Street, as well as signal modification, prior to issuance of the first occupancy permit on site and to the satisfaction of the Director of DPW.

Mitigation for Significant Impact No. 2.1.3e

The following measure is required to mitigate Project-related direct impacts to the intersection of SR 67/Highland Valley Road/Dye Road:

- The Project Applicant shall widen the intersection of SR 67/Highland Valley Road/Dye Road to provide dual northbound to westbound left-turn lanes prior to the occupancy of the 281<sup>st</sup> house on site and to the satisfaction of the Director of DPW.

Mitigation for Significant Impact Nos. 2.1.3f, 2.1.4f, and 2.1.4n

The following measure is required to mitigate Project-related direct and cumulative impacts to the intersection of Ash Street/Pine Street:

- The Project Applicant shall install a traffic signal at the intersection of Ash Street/Pine Street (once the County and Caltrans determine that warrants are met), and widen and restripe the intersection to provide an eastbound to southbound right-turn lane onto Pine Street and a southbound to westbound right-turn lane onto Ash Street prior to issuance of the first occupancy permit on site and to the satisfaction of the Director of DPW.

Mitigation for Significant Impact Nos. 2.1.3g, 2.1.4g, and 2.1.4o

The following measure is required to mitigate Project-related direct and cumulative impacts to the intersection of Pine Street/Olive Street:

- The Project Applicant shall make a fair share contribution to the County to be allocated toward the installation of a traffic signal at the intersection of Pine Street/Olive Street prior to issuance of the first occupancy permit on site and to the satisfaction of the Director of DPW. If the traffic signal is not installed by another entity prior to issuance of the first occupancy permit, the Project Applicant shall install a traffic signal.

Mitigation for Significant Impact Nos. 2.1.3h, 2.1.4h, and 2.1.4p

The following measures are required to mitigate Project-related direct and cumulative impacts to the intersection of SR 67/Archie Moore Road:

- The Project Applicant shall install a three-way traffic signal (once the County and Caltrans determine that warrants are met) at the intersection of SR 67/Archie Moore Road prior to the occupancy of the 281<sup>st</sup> house on site and to the satisfaction of the Director of DPW.

- The Applicant shall make a contribution into the TIF to mitigate cumulative impacts.

Mitigation for Significant Impact Nos. 2.1.4e and 2.1.4m

The following measure is required to mitigate Project-related cumulative impacts to the intersection of SR 67/Highland Valley Road/Dye Road:

- The Project Applicant shall make a fair-share contribution via payment into the TIF program prior to the occupancy of 281 houses on site.

Mitigation for Significant Impact No. 2.1.4q

The following measure is required to mitigate Project-related cumulative impacts to the intersection of SR 78/Magnolia Avenue:

- The Project Applicant shall make a fair-share contribution via payment toward another project according to Board Policy J-25 or payment into the TIF program prior to occupancy of the 281<sup>st</sup> house on site. Required mitigation at this location includes the addition of one lane north of SR 78 for a distance of approximately 175 feet, plus a 90-foot transition.

Mitigation for Significant Impact No. 2.1.4r

The following measure is required to mitigate Project-related cumulative impacts to the intersection of Main Street/14<sup>th</sup> Street:

- The Project Applicant shall make a fair-share contribution via payment toward another project according to Board Policy J-25 or payment into the TIF program prior to occupancy of the 281<sup>st</sup> house on site. Required mitigation at this location may include a new northbound to eastbound right-turn lane, a minor signal modification, and curb returns at all corners.

These mitigation measures would reduce impacts to intersections to below a level of significance. Significant direct and cumulative impacts to roadway segments (Significant Impact Nos. 2.1.3a, 2.1.4a, and 2.1.4i [Pine Street/10<sup>th</sup> Street from Haverford Road to H Street] and Significant Impact Nos. 2.1.3b, 2.1.4b, and 2.1.4j [Main Street from 7<sup>th</sup> Street to Poway Road]) would be partially mitigated by implementation of required intersection mitigation measures; however, impacts to roadway segments would remain significant and unmitigated.

## **Air Quality**

The following measures related to short-term (fugitive dust generation and equipment exhaust during Project grading) shall be implemented for the Proposed Project to reduce identified air quality impacts. As previously noted, significant unmitigable impacts for these issues would still occur from the Proposed Project, even after implementation of the identified mitigation measures.

#### Mitigation for Significant Impact No. 2.2.3a

In order to mitigate temporary project-direct air quality impacts related to VOC emissions to less than significant levels:

- The Project will be required to paint less than one house per day.

As noted on Table 1-7 and in the “List of Mitigation Measures and Environmental Design Considerations” located at the back of this EIR, where possible, the Project has incorporated use of low-VOC coatings that meet the requirements of APCD Rule 67.0 as a matter of project design. (Coatings generally would be water-based and typically meet a VOC content of 150 grams per liter or less, except for specialty coatings that may be needed in minor amounts on trim.) Implementation of this design consideration alone, however, would not reduce potential impacts to less than significant levels.

Implementation of the mitigation measure noted above, stretching residential painting over a period of approximately two years, is considered excessive for these temporary effects (i.e., it is not capable of being accomplished within a reasonable period of time, taking into account economic and technological factors), and there is no additional feasible mitigation to effectively reduce short-term impacts to below a level of significance. VOC emissions related to architectural coatings during construction for the Proposed Project would be significant and unmitigable.

#### Mitigation for Significant Impact No. 2.2.4a

Because emissions would remain above the significance threshold for VOCs, which are ozone precursors, the following mitigation measure will be implemented to reduce emissions from heavy equipment:

- The Project will require 10 percent of the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters, and/or ARB certified Tier I, II, or III equipment.

Ten percent was determined to be a reasonable requirement based on the amount of contractors whose fleets have already been retrofitted and engines repowered as a result of the local and neighboring Carl Moyer Programs. With use of 10 percent of the construction fleet retrofitted and/or repowered and use of low-VOC coatings, the project would mitigate emissions to the extent feasible.

### **Land Use and Planning**

#### Mitigation for Significant Impact Nos. 3.1.3a and b

Mitigation for Significant Impact Nos. 3.5.3b through f in Subchapter 3.5, Aesthetics, would reduce potentially significant land use impacts related to conformance with Condition 17 of the RCP Community Character Element and Residential Policy 5 of the RCP Land Use Element to below a level of significance. This measure includes installation of landscaping consisting of native species compatible with existing trees and vegetation cover around the proposed water storage tank and hydroseeding cut slopes along the proposed access road to the water tank with native seed mixes compatible with existing native species.

#### Mitigation for Significant Impact 3.1.3c

Mitigation for Significant Impact Nos. 3.3.3c and 3.3.3d, which includes establishment of a noise protection easement on site at a distance of approximately 500 feet from the centerline of Montecito Ranch Road, as identified in Subchapter 3.3, Noise, would reduce potentially significant land use plan impacts to on-site residences related to conformance with Policy 1 of the RCP Noise Element to below a level of significance.

#### Mitigation for Significant Impact Nos. 3.1.3d and 3.1.3f

Mitigation for Significant Impact No. 3.3.3e in Subchapter 3.3, Noise, would reduce potentially significant land use plan impacts and significant community character impacts due to noise levels along Montecito Way to below a level of significance. This measure includes construction of noise walls or rubberized asphalt in front of the two houses that would be significantly affected by interior noise levels. Similarly, pursuant to Mitigation for Significant Impact No. 3.5.3a in Subchapter 3.5, Aesthetics, screening vegetation will be planted in front of the walls, which will reduce impacts to the existing community character of Montecito Way to less than significant levels.

#### Mitigation for Significant Impact No. 3.1.3e

Mitigation for Significant Impact No. 3.5.3a in Subchapter 3.5, Aesthetics, would reduce significant short-term community character impacts to the Montecito Way viewshed to below a level of significance. This measure includes planting the sides of the roadway with trees and shrubs similar to those currently present along the roadway.

### **Biological Resources**

The Proposed Project would significantly impact sensitive habitats and animal species through direct loss and could cause significant indirect impacts as well. Open space easements would be placed on all biologically meaningful areas outside grading and fire clearing impact areas to protect the resources in perpetuity. The mitigation measures would be finalized through consultation with the resource agencies and the County as part of the permitting and regulatory processes.

The existing acreages, acres of impact, mitigation ratios, mitigation required for direct impacts, the quantity of habitat available on site for mitigation, and the remaining habitat acreage on-site (if any) are listed in Tables 3.2-6 (under Wastewater Management Option 1) and 3.2-7 (under Wastewater Management Option 2) for on-site impacts and Tables 3.2-8 for off-site impacts.

#### Mitigation for Significant Impact No. 3.2.3a

- Direct impacts to 0.93 acre of on-site dense Engelmann oak woodland shall be mitigated at a 3:1 ratio through the preservation of 2.79 acres of dense Engelmann oak woodland within on-site dedicated open space. Although not required as mitigation, as part of Project design, an additional 9.88 acres of this habitat will be retained on site within dedicated open space. (Wastewater Management Options 1 and 2)

Mitigation for Significant Impact No. 3.2.3b

- Direct impacts to 0.39 acre of on-site open Engelmann oak woodland shall be mitigated at a 3:1 ratio through the preservation of 1.17 acres of open Engelmann oak woodland within on-site dedicated open space. Although not required as mitigation, as part of Project design, an additional 17.04 acres of this habitat will be retained on site within dedicated open space. (Wastewater Management Options 1 and 2)

Mitigation for Significant Impact Nos. 3.2.3c and 3.2.4a

- Direct impacts to 69.31 acres of on-site Diegan coastal sage scrub on site shall be mitigated at a 2:1 ratio through the preservation of 138.62 acres of Diegan coastal sage scrub within on-site dedicated open space. Although not required as mitigation, as part of Project design, an additional 111.0 acres of this habitat will be retained on site within dedicated open space. (Wastewater Management Options 1 and 2)

Mitigation for Significant Impact No. 3.2.3d

- Direct impacts to 123.27 acres of on-site southern mixed chaparral shall be mitigated at a 0.5:1 ratio through the preservation of 61.63 acres of southern mixed chaparral within on-site dedicated open space. Although not required as mitigation, as part of Project design, an additional 44.20 acres of this habitat will be retained on site within dedicated open space. (Wastewater Management Options 1 and 2)

Mitigation for Significant Impact No. 3.2.3e

- Direct impacts to 11.57 acres of on-site chamise chaparral shall be mitigated at a 0.5:1 ratio through the preservation of 5.78 acres of chamise chaparral within on-site dedicated open space. Although not required as mitigation, as part of Project design, an additional 8.61 acres of this habitat will be retained on site within dedicated open space. (Wastewater Management Options 1 and 2)

Mitigation for Significant Impact No. 3.2.3f and i

- Direct impacts to 26.85 acres of on-site non-native grassland shall be mitigated at a 1:1 ratio through the preservation of 6.69 acres of non-native grassland within on-site dedicated open space and the purchase of 20.16 acres of non-native grassland in an approved mitigation bank or area approved by the Director of DPLU. The 1:1 ratio accounts for a 0.5:1 mitigation ratio for impacts to non-native grassland habitat and an additional 0.5:1 mitigation ratio for impacts associated with the loss of raptor foraging lands in the Ramona Grasslands area. Although not required as mitigation, as part of Project design, an additional 16.68 acres of this habitat will be retained on site within dedicated open space. (Wastewater Management Option 1 only)
- Direct impacts to 27.61 acres of on-site non-native grassland shall be mitigated at a 1:1 ratio through the preservation of 5.93 acres of non-native grassland within on-site dedicated open space and the purchase of 21.68 acres of non-native grassland in an approved mitigation bank or area approved by the Director of DPLU. The 1:1 ratio accounts for a 0.5:1 mitigation ratio for impacts to non-native grassland habitat and an additional 0.5:1 mitigation ratio for impacts associated with the loss of raptor foraging lands in the Ramona Grasslands area.

Although not required as mitigation, as part of Project design, an additional 16.68 acres of this habitat will be retained on site within dedicated open space. (Wastewater Management Option 2 only)

- If wetland impacts associated with off-site road and/or sewer improvements are mitigated for on the Project site, additional impacts to non-native grassland will occur and will require mitigation. Mitigation for impacted non-native grassland will be required at a 2:1 ratio because the proposed mitigation site is already allocated for mitigation from previous impacts to the property. This mitigation will be required to be achieved within a parcel approved by the Director of DPLU. Specifically, direct impacts to 0.24 acre of non-native grassland shall require the preservation of 0.48 acre of non-native grassland.

Sufficient land currently exists within the Project's vicinity to meet the required mitigation measures for impacts to non-native grasslands, as described above. Specifically, three privately owned, large parcels containing approximately 197 acres are located within the Ramona Grasslands. Smaller parcels also occur within the region.

#### Mitigation for Significant Impact No. 3.2.3g

- Prior to grading, sufficient evidence must be provided to the County Director of DPLU that all state and federal wetland permits have been obtained or that permits are not required. (Wastewater Management Options 1 and 2)
- Direct impacts to 3,500 linear feet of on-site jurisdictional Waters of the U.S. shall be mitigated by the preservation of the remaining Waters of the U.S. on site (approximately 19,215 linear feet). (Wastewater Management Options 1 and 2)

#### Mitigation for Significant Impact No. 3.2.3h

- Direct impacts to the coastal California gnatcatcher shall be mitigated by the preservation of 249.62 acres of suitable and occupied gnatcatcher habitat (Diegan coastal sage scrub) on site. (Wastewater Management Options 1 and 2)
- If Project grading, clearing, or construction activities are scheduled to begin during the breeding season for coastal California gnatcatcher (February 15 through August 30), surveys pursuant to USFWS protocol shall be conducted to determine the presence or absence of the species in coastal sage scrub habitat within 300 feet of proposed activities. If it is determined that the species is absent, activities may proceed without restrictions. If the coastal California gnatcatcher is present, no grading, clearing, or construction activities shall be allowed between February 15 and August 30 within 300 feet of the habitat for this species or until the nest is vacated, as determined by a qualified biologist.

#### Mitigation for Significant Impact Nos. 3.2.3j through n

- The following general mitigation measures shall be applied to the Proposed Project (under Wastewater Management Options 1 and 2) to protect the resources during construction:
  - The Project Applicant shall participate in a Landscape Maintenance District as the funding mechanism for the long-term management of open space.
  - Biological monitoring of clearing and grading shall be conducted as follows:



- A biological monitor shall be hired by the Project Applicant prior to initiation of construction including staging, brushing, clearing, scraping, or any other ground-disturbance work.
- The biological monitor shall attend any pre-construction meetings and provide the foreman with a map of areas considered sensitive and shall monitor construction activities in areas adjacent to sensitive habitat.
- The biological monitor shall keep logs of construction activities and submit monthly monitoring reports to the County.
- Should work occur during bird breeding seasons (including coastal California gnatcatcher), noise monitoring shall be conducted by either an acoustical specialist or the biological monitor.
- If an impact occurs to a sensitive resource, the biological monitor shall have the ability to cease construction activity and shall notify the appropriate authority immediately. If construction is not ceased based on the monitor's direction, the monitor shall report the incident to the County inspector.
- The limits of the sensitive habitat shall be flagged or fenced by a qualified biologist prior to grading to prevent inadvertent impacts to the habitat.
- The population of approximately 75 individuals of delicate clarkia within the chamise chaparral habitat on the eastern side of the property, the population of approximately 2,340 individuals of southern tarplant, and, under Wastewater Management Option 1, the approximately 3 individuals of southern tarplant shall be flagged during construction to prevent encroachment.
- If Project grading, clearing, or construction activities are scheduled to begin during the breeding season for raptors (February 15 through July 15), surveys shall be conducted by a qualified biologist to determine the presence or absence of nesting raptors within 300 feet of proposed activities. If it is determined that nesting raptors are absent, activities may proceed without restrictions. If an active raptor nest is present, no grading, clearing, or construction activities shall be allowed between February 15 and July 15 within 300 feet of the active nest or until the nest is vacated, as determined by a qualified biologist.
- No trash, oil, parking, or other construction related activities shall be allowed outside the grading limits.
- Prior to occupancy, a fence shall be installed to create a permanent barrier between residential yards and open space. The fence shall be a minimum of five feet in height and be of sufficient material to discourage trespassing into open space (Figure 3.2-10).
- The Project shall implement the required RMP (REC 2008c; Appendix E) for the Proposed Project (under Wastewater Management Options 1 and 2), including the following measures:
  - All open space for Units 1 and 2 shall be dedicated upon completion of Unit 1.
  - Selected areas along on-site trails shall be fenced with lodgepole fencing at select locations to provide direction and prevent encroachment into the open space (Figure 3.2-10). The on-site trails shall be posted with "off-limits" signs that also explain why the area should be avoided (Figure 3.2-11).

- The Project Applicant shall participate in a Landscape Maintenance District as the funding mechanism for the long-term management of open space.
- Exotic plant species shall be removed from high quality woodlands, wetlands, and grasslands on an as-needed basis to be assessed every five years.
- Sensitive plant population boundaries shall be mapped every three years.
- Trash shall be removed from open space annually.
- All habitats and sensitive plant and animal species shall be monitored annually. Biological surveys shall be conducted every five years for sensitive plant and animal species.

Mitigation for Significant Impact No. 3.2.3o

- Direct impacts to 0.24 acre of off-site riparian woodland shall be mitigated at a 3:1 ratio through the creation of 0.24 acre (1:1 ratio) of riparian woodland and the preservation of 0.36 acre of riparian woodland, for a total of 0.48 acre. Mitigation shall occur within an approved mitigation bank or area approved by the Director of DPLU.

Mitigation for Significant Impact No. 3.2.3p

- Direct impacts to 2.20 acres of off-site Diegan coastal sage scrub shall be mitigated at a 2:1 ratio through the preservation and/or purchase of 4.40 acres of Diegan coastal sage scrub within on-site dedicated open space and/or an approved mitigation bank or area approved by the Director of DPLU.

Mitigation for Significant Impact No. 3.2.3q

- Direct impacts to 5.00 acres of off-site non-native grassland shall be mitigated at a 1:1 ratio through the purchase of 5.00 acres of non-native grassland in an approved mitigation bank or area approved by the Director of DPLU.

Mitigation for Significant Impact No. 3.2.3r

- Direct impacts to 2.10 acres of off-site agriculture/pasture land shall be mitigated at a 1:1 ratio through the purchase of 2.10 acres of agriculture/pasture land in an approved mitigation bank or area approved by the Director of DPLU.

Mitigation for Significant Impact No. 3.2.3s

- Direct impacts off-site jurisdictional Waters of the U.S. shall be mitigated by the preservation of the remaining Waters of the U.S. on site (approximately 19,215 linear feet).

Noise

The following measures are required to mitigate Project impacts from noise to below a level of significance:

Mitigation for Significant Impact Nos. 3.3.3a and 3.3.3b

- All construction equipment shall use properly operating mufflers.

- All construction staging shall be performed as far as possible from occupied dwellings.
- Anticipated heavy equipment operations for full workdays within 300 feet of any occupied dwelling shall require a noise control plan that either ensures that the residence is unoccupied during the workday or reduces the hours of allowable operation such that the 75 dB(A) CNEL noise standard is met. Alternatively, temporary, movable barriers could be utilized to mitigate noise impacts to residents adjacent to the proposed off-site road and utilities improvements.

Mitigation for Significant Impact Nos. 3.3.3c and 3.3.3d

- A six-foot high solid barrier shall be constructed on the southern property line of all Project lots that have a Montecito Ranch Road frontage. The barrier's weight must be at least 3.5 pounds per s.f. of face area and have no decorative cutouts or line-of-sight openings between the houses and Montecito Ranch Road. All gaps (except for weep holes) shall be filled with grout or caulking. The barrier may be constructed using one of the following alternative materials: (1) masonry block; (2) stucco veneer over wood framing (or foam core) or one-inch thick tongue and groove wood of sufficient weight per s.f.; (3) glass (0.25-inch thick) or other transparent material with sufficient weight per s.f.; (4) earthen berm; or (5) any combination of these construction materials.
- On the Final Map, the Project Applicant shall grant to the County of San Diego a noise protection easement over the entire area of lots 1 through 8, 119, 120, 144, 145, 148 through 166, 235 through 244, 250 through 260, 268 through 275, 376, 377, 389 through 397, 398 through 400, and 412 through 425 inclusive of VTM 5020RPL<sup>6</sup>. This easement is for the mitigation of present and anticipated future noise levels on residential uses of the affected parcels. The easement shall require:

Prior to the issuance of any building permit for any residential use within the noise protection easement, the Project Applicant shall:

- Complete to the satisfaction of the Director of DPLU, an acoustical analysis performed by a County-approved acoustical engineer, demonstrating that the present and anticipated future noise levels for the interior and exterior of the residential dwelling will not exceed the allowable sound level limit of the Noise Element of the General Plan (60 dB[A] CNEL exterior and 45 dB[A] CNEL interior) and the RCP (55 dB[A] CNEL exterior). Future traffic noise level estimates for Montecito Ranch Road must utilize an LOS C traffic flow for a rural light collector road classification, which is the designated General Plan Circulation Element buildout roadway classification.
- Incorporate to the satisfaction of the Director of DPLU all of the recommendations or mitigation measures of the acoustical analysis into the project design and building plans.

Mitigation for Significant Impact No. 3.3.3e

- Four-foot high solid noise walls shall be placed on private property in front of the two houses that would be significantly impacted by traffic noise (refer to Figure 3.3-2 for wall locations). If an agreement cannot be reached between the Applicant and the affected property owners, the noise walls shall be constructed within the right-of-way along Montecito Way or the roadway will be paved with rubberized asphalt in front of the homes and extending 300 feet north and south beyond the homes. If walls are constructed, the northernmost wall will be

approximately 90 feet long and the southernmost wall will be 80 feet long. The barrier's weight must be at least 3.5 pounds per s.f. of face area and have no decorative cutouts or line-of-sight openings between the houses and Montecito Way. All gaps (except for weep holes) shall be filled with grout or caulking. The barrier may be constructed using one of the following alternative materials: (1) masonry block; (2) stucco veneer over wood framing (or foam core) or one-inch thick tongue and groove wood of sufficient weight per s.f.; (3) glass (0.25-inch thick) or other transparent material with sufficient weight per s.f.; (4) earthen berm; or (5) any combination of these construction materials.

Mitigation for Significant Impact No. 3.3.3f

- The pump station emergency generators shall be located in a cinder-block building that utilizes acoustical louvers to decrease the noise level at the adjacent residential property lines. The louvers shall be placed on the vent openings on the northern side of the building. The sides of the building facing east, south, and west are required to be completely free of any openings or ventilation.
- Once construction of the pump stations is completed and the pump stations are fully operational, a site-specific analysis shall be prepared to determine if additional measures are required to meet the property line noise standards.

Mitigation for Significant Impact No. 3.3.3g

- Prior to operation of the water booster pump station, a qualified acoustician shall verify that the emergency generator designs feature setbacks, quieter equipment, noise-attenuating enclosures, and/or reduced test times to prevent the daytime residential standard of 50 dB(A)  $L_{eq}$  from being exceeded.

**Cultural Resources**

Mitigation for Significant Impact 3.4.3a

- Direct impacts to site SDI-12,506 shall be mitigated by preparing and executing a data recovery plan for the site, which will include implementation of an approved research design plan, focusing on site mapping, diagnostic surface artifact collection, and subsurface data recovery excavation. The research design is included in the Archaeological Resources Review, Impact Assessment, and Preservation Plan (Appendix G) and shall include the following actions:
  - Field work shall be undertaken upon approval of the research design by DPLU archaeological staff. Field work also shall be coordinated with local Kumeyaay, who expressed an interest in the Project. The County shall identify a Kumeyaay representative to participate in the planning and implementation of the data recovery work to be undertaken at SDI-12,506. All field work, analysis, and report preparation will be completed under the direct supervision of a qualified archaeologist who meets County requirements or Secretary of the Interior Standards.
  - A phased approach shall occur for the data recovery excavations. Phase I shall complete a total of 40 shovel test pits and 10 square meters of test excavation. Phase II shall focus on

high density artifact areas and possible feature areas and shall complete up to an additional 10 square meters of excavation. All soils shall be passed through 1/8-inch screen.

- All prehistoric cultural materials shall be bagged with provenience and saved for analysis. Fire-affected rock and non-diagnostic historic materials shall be noted but not saved, unless they need to be included in materials submitted for special analyses. Appropriate documentation shall be completed.
- The debitage analysis shall focus on identifying stage-of-reduction technology information. Stone material type also shall be recorded. Attributes of diagnostic flake type, flake size, and amount of cortex present shall be identified.
- Ground stone artifacts shall be described by type (mano, pestle, metate, etc.), material type, presence of shaping or battering, number of faces, and condition.
- Ceramics shall be quantified by weight and analysis focused on identifying manufacture technology, characterizing clay fabric, identifying use attributes, and determining vessel form, if possible. Most sherds shall be broken to examine the interior fabric and all rim sherds shall be examined for diagnostic characteristics.
- Animal and reptile bones will be analyzed separately by faunal analyst Susan Arter Mayer of the San Diego Natural History Museum.
- If recovered, up to 3 samples shall be submitted for radiocarbon dating, up to 5 samples shall be submitted for obsidian sourcing and hydration analysis, and up to 10 pottery samples shall be submitted for thin section analysis. If appropriate, samples shall be submitted for soil pollen analyses and tool pollen and protein residue studies.
- The results of the excavations and analysis will be presented in a report following the guidelines established by the Archaeological Resource Management Reports: Recommended Contents and Format prepared by the California Office of Historic Preservation. Appropriate photographs, maps, and drawings will be included as well as data catalogs and results of special studies.
- All cultural materials recovered during the data recovery mitigation phase will be combined with the materials recovered during the test phase and will be processed and curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to the San Diego Archaeological Center, to be accompanied by payment of the fees necessary for permanent curation.

#### Mitigation for Significant Impact 3.4.3b

- Direct impacts to buried, previously unrecorded, cultural resources would be mitigated through the execution of a grading monitoring program. The program would include the following requirements:

Implement a grading monitoring and data recovery program to mitigate potential impacts to undiscovered buried archaeological resources on the Montecito Ranch property (SP01-001, TM5250RPL, Log No. 01-09-013) to the satisfaction of the DPLU Director. This program shall include, but shall not be limited to, the following actions:

- Provide evidence to DPLU that an adequate number of County-approved archaeologists has have been contracted to implement a grading monitoring and data recovery program

- to the satisfaction of the DPLU Director. A letter from the Principal Investigator shall be submitted to the DPLU Director.
- The Project Archaeologist shall contract with an adequate number of Native American monitors to be involved with the grading monitoring program as outlined in the County of San Diego Report Format and Content Guidelines (2006).
  - The County-approved archaeologist(s)/historian(s) and Native American(s) monitor shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program as outlined in the County of San Diego Report Format and Content Guidelines (2006).
  - The consulting archaeologist(s) shall monitor all areas identified for development including off-site improvements.
  - During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be on site full-time to perform full-time monitoring as determined by the Principal Investigator of the excavations. The frequency of inspections will depend on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator.
  - Isolates and clearly non-significant deposits shall be minimally documented in the field and the monitored grading can proceed.
  - In the event that previously unidentified potentially significant cultural resources are discovered, the Project Archaeologist shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Project Archaeologist shall contact the County Archaeologist at the time of discovery. The Project Archaeologist, in consultation with the County Archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the County Archaeologist, then carried out using professional archaeological methods.
  - If any human bones are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains. The Principal Investigator shall follow up with the County Coroner and NAHC to ensure that these steps have been completed.
  - Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The Principal Investigator shall determine the amount of material to be recovered for an adequate artifact sample for analysis.
  - In the event that previously unidentified cultural resources are discovered, all cultural material collected during the grading monitoring program shall be processed and curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San

- Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.
- In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the DPLU Director prior to the issuance of any building permits. The report will include Department of Parks and Recreation Primary and Archaeological Site forms.
  - In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to DPLU by the Project Archaeologist stating that the grading monitoring activities have been completed and were negative.

#### Mitigation for Significant Impact No. 3.4.3c

To mitigate for potential impacts to unknown but potential subsurface cultural resources beneath the proposed equestrian staging area, the following mitigation measure shall be implemented:

- Test excavations shall be completed prior to construction of the equestrian improvements to confirm the surface assessment that no cultural resources are located in the area. If resources are discovered, the above procedures listed in Mitigation for Significant Impact No. 3.4.3b would be implemented to ensure proper handling of such resources.

#### Mitigation for Significant Impact 3.4.3d

To mitigate for indirect impacts to the Montecito Ranch Historic Complex (CA-SDI-12,476H) the following mitigation measures shall be implemented:

The Montecito Ranch Historic Complex (SDI-12,476H) shall be preserved and maintained by the County or cooperating group.

- Funds for the management and maintenance of the Montecito Ranch House shall be procured through the LMD. Preservation and maintenance measures for the Ranch House are presented in the Historical Resources Review, Impact Assessment, and Preservation Plan for the Montecito Ranch House Complex (Heritage Resources 2008c).
- The Proposed Project shall ensure that the historic buildings will be used in a manner consistent with their historic character and maintained in accordance with the Secretary of the Interior's "Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings" and Secretary of the Interior Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings" and the California State Historic Building Code. (These standards provide general guidelines for necessary repairs and upgrades, such as reuse of existing historic fabric and replacement of historic fabric in like kind. In addition, the California State Historic Building Code provides methods to maintain historic integrity while providing necessary structural stabilization or accessibility improvements.)
- Any ground disturbing activities, such as landscape and/or hardscape installation, utility upgrades, driveway improvements, or equestrian facility improvements shall be reviewed for potential impacts by a qualified archaeologist who meets Secretary of the Interior Standards.

The archaeologist would make avoidance or impact mitigation recommendations, in accordance with the Secretary of the Interior Standards for Archaeological Documentation, which could include archaeological excavations guided by an archaeological research design and implemented by the qualified archaeologist.

- The Project Applicant shall prepare and submit to the County Historic Site Board an application for Landmark Designation in accordance with Ordinance 9493 (Local Register of Historical Resources adopted August 14, 2002) for the Montecito Ranch House and surrounding landscape that is described in the Historical Resources Review, Impact Assessment, and Preservation Plan for the Montecito Ranch House Complex prepared by Heritage Resources dated January 30, 2008. The County Historic Site Board shall examine the Montecito Ranch House and make a recommendation to the Director of DPLU, who shall review the nomination for Landmark Designation and make a decision whether the resource is eligible for Historic Designation in accordance with Ordinance 9493.

#### Mitigation for Significant Impact 3.4.3e

To mitigate for indirect impacts to the significant archaeological resources (CA-SDI-12,473, CA-SDI-12,474, CA-SDI-CA-SDI-12,475, CA-SDI-12,480, CA-SDI-12,481, CA-SDI-12,484H, CA-SDI-12,486, CA-SDI-12,489, CA-SDI-12,494, CA-SDI-12,496, CA-SDI-12,497, CA-SDI-12,498, and P-37-024282) the following mitigation measures shall be implemented:

- The remaining 13 archaeological sites shall be placed within dedicated open space and shall be monitored throughout the development process. It is anticipated that the dense native vegetation on site will adequately protect these sites from vandalism. Allowable ground disturbing activities shall be limited to archaeological excavations guided by an archaeological research design approved by the County of San Diego. Any proposed archaeological research program should include provision for curation of collections and records.
- The required RMP for the Montecito Ranch development shall be prepared and shall include, in addition to the above measures, the following:
  - To ensure that no inadvertent impacts to archaeological sites occur post-construction, the following activities shall not be allowed within 100 feet of any archaeological site boundary: brush clearing, vegetation thinning, future trail development, or use of any type of mechanical equipment in the event of a brush fire or for any other purpose.
  - Active measures for protection will be implemented as development proceeds, including rustic fencing to be placed periodically along road and trail alignments to protect natural and cultural resources.
  - Interpretive signage shall be placed at trailheads (not in specific resource locations) to advise trail users of the cultural sensitivity of the area as well as the legal penalties for resource disturbance.
  - As plans develop for the active management of the Montecito Ranch House, provisions shall be made for the County or cooperating group to provide periodic open space protection monitoring. An agency archaeologist should provide scheduled monitoring of archaeological sites. If volunteers are sponsored and supervised by a qualified archaeological association or individual who can ensure confidentiality for archaeological site locations, the cooperating group can also provide archaeological site monitoring for



specific locations. One remaining prehistoric/historic site in the southwest portion of the property lies primarily in open grassland and will require more active protection measures. Because it is visible from the Ranch House, this site shall be monitored by County staff or the cooperating group who manages the Ranch House complex. Yearly inspections shall be completed to ensure that no inadvertent impacts or intentional artifact collecting is occurring.

#### Mitigation for Significant Impact 3.4.3f

- Direct impacts to buried, previously unrecorded, cultural resources for off-site improvements would be mitigated through the execution of a grading monitoring program. A qualified cultural resource monitor shall be present during grading for proposed off-site roadway and utility improvements, including along Montecito Way in the vicinity of previously recorded sites and where surface visibility was poor during the survey, as discussed under Mitigation for Significant Impact No. 3.4.3b and the Archaeological Resources Review, Impact Assessment, and Preservation Plan (Appendix G), to prevent impacts to any unknown resources (including buried resources).

#### Mitigation for Significant Impact 3.4.3g

- Because of the potential for indirect impacts to the rural setting along Montecito Way, mitigation in the form of appropriate right-of-way improvements along this roadway segment shall be implemented to complement the setting, such as historically appropriate fencing and/or landscaping.

#### Mitigation for Significant Impact 3.4.3h

- The Montecito Road Bridge shall be recorded on DPR 523 Resource Record Forms, including appropriate photographs and drawings as documentation.

### Aesthetics

#### Mitigation for Significant Impact No. 3.5.3a

The following mitigation is proposed to reduce short-term visual impacts along Montecito Way to less than significant levels:

- Following improvements to Montecito Way, the sides of the roadway shall be planted with trees and shrubs similar to what is currently present along the roadway. Trees will be planted with 24-inch container boxes and are anticipated to initially be approximately 12 to 15 feet in height. The trees have a growth rate of up to three feet per year. Tree species will include, but not be limited to eucalyptus (*Eucalyptus* spp.), Brisbane box tree (*Tristania converta*), coast live oak (*Quercus agrifolia*), and California pepper (*Schinus molle*). Trees will be spaced randomly along the roadway approximately every 30 to 40 feet. Shrubs will be used to screen the understory of the trees. Shrubs will be planted from five-gallon containers and would grow up to approximately two feet per year. Scrub species will include, but not be limited to, toyon (*Heteromeles arbutifolia*), manzanita (*Arctostaphylos* spp.), agave (*Agave* spp.), and lantana (*Lantana* sp.).

- Screening vegetation (similar to that discussed above) shall be planted in front of the noise walls along Montecito Way.

#### Mitigation for Significant Impact Nos. 3.5.3b through f

The following mitigation measure would reduce visual quality impacts associated with the off-site water storage tank and access road to below a level of significance:

- Landscaping consisting of native species compatible with existing trees and vegetation cover shall be provided around the proposed water storage tank.
- Cut slopes required for the water tank access road shall be hydroseeded with native seed mixes compatible with existing native species.

#### Conditions of Approval Required to Ensure Implementation of Design Features

##### **Transportation/Circulation – Construction**

- A Traffic Control Plan would be prepared and approved by the County Department of Public Works prior to start of any clearing, grading, or construction activities. In order to preclude substantial traffic delays during Project construction, the Proposed Project would include the preparation and approval of a Traffic Control Plan, including measures to reduce traffic delays and minimize public safety impacts, such as the use of flag persons, traffic cones, detours and advanced notification signage, pedestrian/equestrian detours, movement restrictions, and temporary lane closures. In addition, the construction contractor shall provide a means for public liaison/contact information for public inquiries and concerns.
- Prior to the occupation of the first house, the following roadway segments would be improved/constructed (refer to Table 1-3 for specifics):
  - Ash Street between the eastern Project boundary and Pine Street
  - Montecito Way between Sonora Way and Montecito Road
  - Montecito Ranch Road between Montecito Way and Ash Street
- Prior to the occupation of the 281<sup>st</sup> house, the following roadway segment would be improved (refer to Table 1-3 for specifics):
  - Montecito Road between Montecito Way and Main Street
- To ensure the safety of motorists, pedestrians and bicyclists, adequate sight distances would be maintained at all intersections, per County standards, and Proposed Project plans would not incorporate any barriers to pedestrians or bicyclists.

### Air Quality – Construction

- The maximum daily grading for Unit 1 would be no more than 41.325 acres, and for Unit 2, the maximum daily grading would be no more than 32.05 acres.
- Reduce idling times for construction equipment.
- Use low-sulfur fuels for construction equipment.
- Use paint with low volatile organic compounds (VOCs) for architectural coatings.
- Require separation and recycling of construction waste.

### Air Quality – Operation

- Include pedestrian, bicycle, and equestrian trails that connect with the Ramona trail system and allow alternative transportation access to commercial centers.
- Provide residents with separate recycling and waste receptacles to support the 50 percent statewide solid waste diversion goal (AB 939).
- Include drought-tolerant trees in the Project landscaping palette. These plantings would contribute to on-site carbon storage, provide shade, and reduce heating from impervious surfaces (California Air Resources Board [ARB] Early Action Measure/Energy Efficiency 2-9).
- Reduce habitat fragmentation and contribute to the preservation of natural habitats, including forests and woodlands, through compact land use patterns.
- Under Wastewater Management Option 2, generate 110,000 gpd of reclaimed water to be used for irrigation purposes. Use of reclaimed water would reduce imported water needs by approximately 37 percent.
- Strive for a 50 percent reduction in water use through features such as low-flow appliances (including toilets, shower heads, and washing machines), a drought-tolerant landscape palette, weather-based irrigation controllers, and other water conservation measures.
- Achieve energy performance structures equivalent to 10 percent better than current Title 24 standards.
- Offer Project residents a choice of energy efficient appliances (including washers, dryers, and refrigerators) and installed appliances would be Energy Star (including dishwashers).
- Smart growth land use patterns that reduce the amount of land being developed result in the reduction of GHG emissions.
- Consumer products installed in residences would comply with CARB's Early Action Guidance regarding the reduction of GHG emissions.

- Provide educational materials for future residents discussing strategies for reducing GHG emissions (CARB Early Action Measure/Education 2-7).

### Odors (Sewer Pump Stations and WRF) – Operation

- The proposed wastewater pump system is designed to pump out several times per hour, and two redundant pumps would be supplied to still run one pump even if the other is in need of repair. An emergency generator would supply power during a power outage to maintain the wastewater flow out of the pump station. A chemical addition system is proposed to inject an oxidizing chemical such as hypochloride (bleach) if objectionable odors are generated within the wet-well. A submerged wet well with frequent and reliable pump-out has no adverse odor potential except within the pump station vault itself; however, a back-up chemical injection system would be included for further odor control redundancy.
- All processing, dewatering and storage of solids at the WRF would occur indoors. Approximately 250 pounds of dry solids would be generated per day. After dewatering once a week, approximately 2 c.y. of sludge would be hauled off site to a local landfill. The facility would be designed to minimize odors, including the addition of water, chemicals or activated carbon, as required. Once the effluent undergoes secondary treatment, odors would be minimized.

### Noise – Operation

- Noise monitoring at similar underground sewer lift stations has determined that noise levels are typically less than 45 dB(A)  $L_{eq}$  while the pump is running. This noise level would meet the most stringent San Diego County Noise Ordinance standard within the property line of each pump station. Pump stations typically include emergency generators. Operation of emergency generators during power outages or other breakdowns is exempt from County Noise Ordinance standards. Testing of the emergency generator, on the other hand, has the potential to generate 79 dB(A)  $L_{eq}$  at a distance of 50 feet if it is mounted above ground. The anticipated distance between the emergency generator and the nearest residential property line is approximately 50 feet at each of the two sewer pump stations. To meet the County's 50 dB(A)  $L_{eq}$  residential noise ordinance standard during generator testing, a distance of 1,000 feet would have to be maintained between the emergency generator and the nearest residence (assuming the worst-case scenario of a clear line-of-sight). Design features would be integrated into the emergency generator to avoid this potentially significant impact.
- All mechanical equipment associated with the WRF would be housed inside buildings or noise attenuating covers. The facility would be designed so that all noise generated on site meets the County Noise Ordinance requirement that the noise level be 45 dB(A) CNEL or less (at night) at the WRF site boundary.

### Aesthetics

#### Construction

- Manufactured slopes would be at a maximum ratio of 2:1. All manufactured slopes in excess of 15 feet would be contour graded (using techniques such as slope undulation, rounding the top and

toe of slopes and varying gradients) and/or would receive enhanced landscaping with native species.

- Existing landscaping, fencing, mailboxes, portions of driveways/access roads, and overhead utility lines that are removed during proposed roadway improvements would be replaced.
- Fence the WRF with coated chain link fencing and landscaping would be planted around the perimeter to partially screen its appearance.

### Operation

- Security lighting within the 0.9-acre WRF area (under Wastewater Management Option 2) would be activated only when operators are present and the access gate is activated. Such lighting would be limited to within the perimeter of the WRF plant and would be directed downward to prevent the flow of light to adjacent areas including the charter high school site and open space.
- Under Wastewater Management Option 1, the sewer pump station within the equestrian staging/overflow parking area in the historic park site would be housed in a structure with architectural treatments that would be compatible with the surrounding historic buildings. In addition, fencing and landscaping would be installed around the pump station.

### **Water Quality, Erosion and Sedimentation – Construction**

- General best management practice (BMP) categories for construction-related hazardous materials identified in the Project SWMP include vehicle and equipment maintenance, material delivery and storage, spill prevention and containment, solid and concrete waste management, and paving/grinding operations. No site-specific BMPs for construction activities are identified in the SWMP, with such detailed measures to be provided in a Project-specific Storm Water Pollution Prevention Plan (SWPPP) that would be prepared prior to Project construction (pursuant to applicable NPDES and County requirements, as outlined below). Specifically, Project construction (including preparation and implementation of the Project SWPPP) would be subject to appropriate regulatory requirements for the issue of construction-related hazardous materials, including applicable elements of the NPDES *General Permit for Storm Water Discharges Associated with Construction Activity* (General Permit, NPDES No. CAS000002, as amended), the County of San Diego *Watershed Protection, Stormwater Management and Discharge Control Ordinance* (Ordinance Nos. 9424 and 9426), and the associated County Stormwater Standards Manual. Conformance with the NPDES General Construction Permit is required for applicable sites exceeding one acre, and is issued by the SWRCB under an agreement with the U.S. Environmental Protection Agency (EPA) pursuant to Water Quality Order 99-08-DWQ. Specific conformance requirements include implementing a SWPPP and an associated monitoring program, as well as a Storm Water Sampling and Analysis Strategy (SWSAS) for applicable projects (i.e., those discharging directly into waters impaired due to sedimentation, or involving potential discharge of non-visible contaminants that may exceed water quality objectives).
- A Project-specific SWPPP would be prepared by the Project Applicant and incorporated into the proposed design prior to Project construction. The SWPPP would identify detailed measures to prevent and control the off-site discharge of contaminants in storm water runoff. Specific

pollution control measures typically involve the use of BAT and/or BCT levels of treatment, with these requirements implemented through BMPs. While Project-specific measures vary somewhat with individual site conditions, detailed guidance for construction-related BMPs is provided in the NPDES construction permit text and referenced County standards, as well as additional standard industry sources including the *Caltrans Storm Water Quality Handbooks* (Caltrans 2003), *EPA Nationwide BMP Menu* (EPA 2003), *Storm Water Best Management Practices Handbooks* (California Stormwater Quality Association 2003), and *Best Management Practices for Erosion and Sediment Control & Stormwater Retention/Detention* (San Diego County Association of Resource Conservation Districts 1998). Based on these sources, preliminary assessment in the Project SWMP and specific elements of the Project site and proposed development, a summary of BMPs likely applicable to the use of construction-related hazardous materials for the Proposed Project is provided below. Implementation of the following measures (and/or other measures as determined appropriate in the Project SWPPP) as part of the Project design would avoid or reduce potential impacts from the use and storage of construction-related hazardous materials to below a level of significance.

- Covered and/or enclosed storage facilities with impermeable liners and barriers (e.g., berms) would be used for all potential construction related pollutants other than sediment.
- Petroleum products including oils, fuels, diesel oil, kerosene, lubricants, solvents and asphalt paving would be stored in weather-resistant sheds where possible, with storage areas lined with a double layer of plastic sheeting and equipped with impervious perimeter barriers providing 110 percent containment capacity for stored materials. Stored petroleum products would be clearly labeled, with tanks kept off the ground surface and all storage facilities regularly monitored for leaks and repaired as necessary.
- All construction vehicle and equipment fueling and maintenance activities would be confined to designated areas with impermeable liners and containment structures, and would employ applicable measures to minimize spills such as automatic shut-off nozzles and vapor recovery equipment.
- Waste materials stored on site would be confined to a specified area of appropriate size that is lined with a buried, non-permeable geomembrane and bermed to prevent surface runoff or runoff. Hazardous waste materials including paints, thinners, solvents, acrylic/polyurethane lacquers, primers, soil sterilants, metals and other hazardous compounds would be prohibited from on-site storage except when properly contained in an approved receptacle, labeled and stored in an authorized and covered site. Stored wastes would regularly be removed and disposed of in an approved off-site location.
- Spill response materials would be kept in a convenient on-site location to facilitate timely response and cleanup. Specific materials and methods would include clean dry rags for small spills; containment and use of dry absorbents for medium spills; and containment, use of dry absorbents, temporary plugging of drain inlets and agency notification for large spills. Regulatory agency telephone numbers and a summary guide of clean-up procedures (as identified in the SWPPP) would be posted in a conspicuous location at or near the job site trailer.
- Paving operations would be restricted during inclement weather and would include the use of sediment controls as described in Section 4.1.2, Geology/Soils and Minerals. Washouts of paving vehicles and equipment would be limited to designated and properly designed areas, and all paving wastes would be properly contained and disposed.

- Construction related trash and septic wastes would be contained in approved locations/facilities, with regular off-site disposal at approved locations.
- Chemical fertilizers, pesticides and herbicides used in temporary landscaping would be avoided if feasible and minimized in all cases, and would strictly adhere to manufacturer's specifications for use and storage.
- All BMPs would be regularly monitored and properly maintained to ensure proper working order, and non-visible pollutant monitoring/testing would be implemented as described in SWRCB Resolution 2001-046 (Order 99-8-DWQ) and the Project SWPPP. Specifically, such monitoring/testing would include scheduled monitoring to observe and document potential spills, collection and field/laboratory testing of water samples in appropriate locations, and preparation and submittal (to the County) of monitoring/testing reports.
- Technical and regulatory training would be provided to all appropriate construction employees to ensure understanding of proper hazardous material use and storage; spill risks and responses; and monitoring/maintenance efforts.
- The Project Applicant (or construction contractor) would be required to conform to the NPDES General Groundwater Extraction Waste Discharges Permit (Dewatering Permit, NPDES CAG919002) prior to disposal of extracted groundwater. This permit is administered by the RWQCB through Order No. 2001-96, with conformance required for all dewatering activities that would either dispose of greater than 100,000 gpd of extracted groundwater, or dispose of groundwater that would exceed local Basin Plan water quality objectives. While specific measures to ensure conformance can vary with site-specific conditions, such efforts typically involve a number of standard BMPs to protect downstream water quality. The previously referenced standard industry BMP sources identify the following types of measures for disposal of extracted groundwater: use of sediment catchment devices (similar to those described in Section 4.1.2, Geology/Soils and Minerals, for erosion and sedimentation), testing of extracted groundwater for contaminants prior to discharge, and treatment of groundwater prior to discharge (if required) through measures such as filtering (e.g., with gravel and filter fabric media) or conveyance to a municipal wastewater treatment plant.

### Water Quality, Erosion and Sedimentation – Operation

- Potential long-term water quality impacts associated with use of the site as a residential community include the generation and off-site discharge of urban contaminants. Project design measures to reduce the long-term water quality impacts include: (1) use of volume- or flow-based structural BMPs to mitigate (i.e., infiltrate, filter or treat) runoff from a design storm event or intensity; and (2) reduction of post-development runoff containing pollutant loads which cause or contribute to an exceedance of receiving water quality objectives to the maximum extent practicable (MEP).
- A waste discharge permit would be obtained from RWQCB prior to operation of the WRF.
- Operation of the WRF and related facilities would conform with all applicable RWQCB, State Health Department and Sanitary Sewer Overflow Response Plan (SSORP) regulations, as well as the Project spill prevention/containment plan, to address the risks associated with accidental sewage spills and leaks.

## Drainage – Construction and Operation

- Five permanent stormwater detention basins would be located in portions of drainage basins S100, N100 and N600/700 to equalize flows from these areas prior to off-site discharge. Pursuant to criteria identified in the Project Preliminary Drainage Study (Appendix I) and other applicable sources (e.g., the Project SWMP, Appendix J), the design, location and operation/maintenance of the noted basins would be such that post-development runoff rates from the site would be maintained at or below pre-development levels. As described in this chapter of the EIR, all proposed detention basins would be located outside of identified dedicated open space areas.
- Riprap type energy dissipators would be placed at storm drain outfalls to reduce flow velocities prior to off-site discharge.
- The Project would include the following design measures to regulate flow locations, rates, and velocities:
  - Use of on-site drainage facilities (storm drains, etc.) designed to accommodate a 100-year storm event (per County guidelines)
  - Installation of extended detention basins and energy dissipators at appropriate locations to maintain pre-development flow/velocity levels
  - Use of vegetated swales and surface or subsurface drains to increase infiltration and control flows in sloped areas

A summarized list of applicable site design, source control and treatment control BMPs and related monitoring/maintenance efforts identified in the Project SWMP is provided below, with these measures applicable to proposed on- and off-site facilities/activities. Implementation of an approved SWMP as part of the Project design would avoid or reduce potential long-term water quality impacts to below a level of significance.

- Site Design BMPs - Site design BMPs are intended to achieve storm water and associated pollutant control by mimicking the natural hydrologic regime (including hydrologic characteristics and contaminant generation) to the MEP. Specific site design BMPs identified for the proposed development in the Project SWMP include the following:
  - The site would be designed to minimize the construction of impervious surfaces by limiting road widths and sidewalks, preserving native vegetation wherever feasible, incorporating landscaping as soon as feasible (to reduce erosion potential) and using vegetated areas for storm water filtering (as described below).
  - Site design would consolidate grading and building areas at the extreme front end of each lot (adjacent to the public street), to preserve the majority of the lots as undisturbed open space (via open space easement) and facilitate infiltration and natural runoff filtering.
  - The Project design incorporates measures to avoid or minimize development (and associated impacts) in critical areas such as receiving waters, floodplains, steep slopes, wetlands, and erosive or unstable soils.
  - Runoff from developed areas would be directed into adjacent landscaping on individual lots (e.g., lawns) and/or biofiltration swales wherever feasible.



- Potential erosion and sedimentation impacts on slopes would be minimized wherever feasible through measures such as avoiding disturbance to existing slopes, minimizing manufactured slopes lengths, using retaining walls to reduce manufactured slope steepness or height, using contour grading techniques to reduce concentrated flows, and directing flows into stabilized drainage structures.
- Detention basins would be used on site to regulate post-development flows and maintain or reduce such flows relative to pre-development levels.
- Riprap type energy dissipators would be installed at all storm drain outlets to reduce runoff velocities and associated erosion potential.
- Source Control BMPs - Source control BMPs are intended to avoid or minimize the introduction of contaminants into the storm drain and natural drainage systems by reducing the potential generation of contaminants at the point of origin to the MEP. Source control BMPs identified for the proposed development in the Project SWMP include the following:
  - An educational program would be implemented to provide homeowners with pertinent information on local water quality concerns and issues through source control measures such as distribution of informational brochures. Specific brochure topics would include: (1) storm water runoff pollution fact sheet; (2) storm water runoff pollution prevention tips for homeowners; (3) storm water runoff pollution prevention for yard work (landscaping, gardening and pest control); (4) storm water runoff pollution prevention for pet waste; and (5) storm water BMPs for swimming pool and spa cleaning.
  - Landscape irrigation systems would be designed and monitored to minimize associated runoff (e.g., by use of moisture/pressure sensors and automatic shutoff devices to preclude irrigation during precipitation or in the event of broken sprinkler heads or lines).
  - Storm drain stencils and/or signs that meet current County criteria would be provided at pertinent locations, such as all Project storm drain inlets (including off-site roadway improvements) and public access points along drainages, to discourage illicit discharges.
  - Covered receptacles, impervious surfaces, and enclosures would be used for trash storage areas to prevent off-site transport and contact with precipitation or runoff.
  - Landscaping within parking areas would be incorporated into the drainage system.
- Treatment Control BMPs - Treatment control BMPs are intended to mitigate (infiltrate, filter or treat) runoff from developed areas, and are required to incorporate (at a minimum) either volume- or flow-based treatment control design standards (as described in the NPDES Municipal Permit and related County requirements). All treatment control BMPs would be designed to accommodate flow or volume associated with a design storm event, pursuant to applicable NPDES and County standards. Treatment control BMPs identified in the Project SWMP are summarized below, with a location map and detailed descriptions of all treatment control BMPs provided as Attachments D and E of Appendix J, respectively:
  - The site design includes five detention basins (including one public and four private basins), as described in Chapter 1.0 of this EIR (Project Description, Location and Environmental Setting) and the Project SWMP (Appendix J). While these basins are intended to regulate runoff discharge (as described above under Drainage Alteration and Runoff) and would not be designed as water quality treatment structures, the associated impoundment of runoff would

create quiescent conditions and remove contaminants such as sediment, particulates and other contaminants (e.g., metals or hydrocarbons that may be adsorbed onto particulates) through settling. In addition, detention basins would be equipped with “water quality outlets,” which consist of filtering devices such as debris screens, rock piles or rock-filled gabions.

- The site design includes a number of ClearWater™ curb inlet filtration units to treat runoff from public and private rights-of-way, including the off-site portion of Montecito Way. These units include three separate screens to filter out larger trash and debris, three chambers to settle out suspended solids, a suspended adsorbent boom in the first chamber to remove hydrocarbons, and a media filter at the end of the treatment train to remove smaller particulates and dissolved metals. Removal efficiencies for ClearWater™ units include 97 percent for total suspended solids (TSS), 86 percent for oil and grease, 81 percent for lead, and 83 percent for zinc (Appendix J).
- Several Vortech VortSentry™ hydrodynamic separators would be used to treat runoff from private roadways within the Project site. These units employ a swirling motion to enhance gravitational separation of contaminants, which are trapped in the storage sump and subsequently removed. Removal efficiencies for VortSentry™ units include 80 percent of TSS with an average particle size of 110 microns.
- A series of BIO CLEAN curb inlet inserts would be located within curb inlets along private roads where storm drain systems are not tributary to hydrodynamic separators, as described above. These units include multiple screens to remove coarse to fine size particulates, as well as a bio-sorb boom that provides medium to high removal efficiency for heavy metals.
- A number of bio-filters (i.e., vegetation-lined swales) would be used as a final treatment for runoff from residential and related development areas within the Project site (i.e., after flows have been treated by other described treatment control BMPs). Bio-filters generally consist of open, shallow channels with vegetated sides slopes and bottoms that filter slow-moving runoff as it passes through. Specific contaminants targeted by bio-filters include sediment, metals, oil and grease, organic material, and oxygen demanding substances.
- Long-term Project operation would include regular monitoring and maintenance of the detention basins, curb inlet filtration units, hydrodynamic separators, curb inlet inserts, and bio-filters to ensure proper working order and conformance with applicable regulatory requirements. Specific measures for detention basins would include the following (refer to Appendix J for additional detail): (1) inspections to be conducted once a month during normal conditions, weekly during extended periods of wet weather and after every large storm event; (2) regular sediment removal from the detention basins and related facilities (e.g., inlet structures) to conform with quantified operational specifications (see Appendix J); (3) maintenance of vegetation at specified heights and regular removal of trash and debris; (4) regular inspection and as-needed maintenance of mechanical and electronic components (e.g., gates and valves) per manufacturer’s specifications; (5) as-needed corrective maintenance for all basin components and related facilities (e.g., fence or slope repairs); (6) elimination of mosquito breeding habitat (i.e., standing water), excluding the treated water storage ponds under Wastewater Management Option 2 (refer to Section 4.1.4, Hazards and Hazardous Materials, for discussion of mosquito control for the storage ponds); (7) regular aesthetic maintenance for vegetated areas (e.g., mowing and trimming) and structures (e.g., graffiti removal); and (8) removal of animal burrows and (if necessary) animals.

Identified monitoring and maintenance measures for curb inlet filtration units include (see also Appendix J): (1) inspections to be conducted after every rainfall event for the first 90 days, once every 60 days during the rainy season, and at the end of the rainy season; (2) periodic (at least twice per year) removal of accumulated materials with a vacuum truck; (3) regular replacement of adsorbent boom and media filter per manufacturer's specifications; and (4) repair/replacement of damaged/defective components on an as-needed basis.

Identified monitoring and maintenance measures for hydrodynamic separators include (see also Appendix J): (1) inspections to be conducted quarterly throughout the year and weekly during extended periods of wet weather; (2) removal of accumulated materials quarterly, after each large storm event, or (for sediment) when accumulation reaches a depth of approximately three feet; and (3) completion of regularly scheduled maintenance per manufacturer's specifications.

Identified monitoring and maintenance measures for curb inlet inserts include (see also Appendix J): (1) inspections to be conducted quarterly under normal conditions and weekly during extended periods of wet weather; (2) periodic removal of accumulated materials; (3) replacement of filter "storm booms" as necessary per manufacturer's specifications; and (4) repair of mechanical components on an as-needed basis.

While intensive maintenance is generally not anticipated for bio-filters, inspections would be conducted annually, after each storm event with more than 0.5 inch of precipitation, and weekly during extended periods of wet weather. Based on the results of such monitoring, the following measures may apply (see also Appendix J): (1) control of vegetation (e.g., mowing) to ensure adequate hydraulic function; (2) periodic removal of sediment, trash, debris, excess or dead vegetation and standing water; (3) erosion/slope repairs; and (4) removal of vector habitat, animal burrows, and (if necessary) animals.

- Equestrian BMPs - The equestrian staging area manager shall ensure that the following measures are implemented at the equestrian areas:
  - The equestrian arena and temporary holding pens shall be cleaned weekly, with immediate disposal of waste materials to a covered, roll-off commercial dumpster.
  - Outside temporary holding pens shall contain decomposed granite that is layered over a thick asphalt felt.
  - All wastes shall be disposed of directly to a commercial dumpster, with no on-site composting proposed.
  - Dumpsters shall be emptied once a week, with waste materials taken to an approved landfill (or associated recycling area).
  - Prior to the rainy season, (September through March), cleaning efforts shall be implemented to remove any excess accumulations of manure from the premises.
  - Non-leak valves shall be used for all water devices.
  - The equestrian facility shall provide a water spout for individual horse owners to use with their own buckets, with no individual horse waterers or large troughs proposed.
  - Feed troughs and bins shall not be provided.

- Grading shall be conducted such that proper drainage is provided in pens, arenas and corrals.
  - Facility users shall be requested to report all water leaks to prevent unnecessary saturation in areas where manure may be present.
  - All watering devices shall be regularly inspected by maintenance personnel to ensure proper working conditions.
  - A general clean up program shall be implemented to supplement manure management efforts at the equestrian facilities, including measures such as promptly removing damp or spilled feed, properly storing all waste products prior to off-site disposal, and precluding on-site feed and supplement storage.
  - Manure storage bins shall be placed onto impervious surfaces with appropriate berming.
  - Pesticide use shall be limited to insecticides (Py-Tech or equivalent) to reduce fly and mosquito breeding, and shall be applied by a licensed professional.
- Implementation of the following measures (and/or other BMPs as determined appropriate in the pending Project SWPPP) as part of the Project design would avoid or reduce potential impacts from the use and storage of construction-related erosion/sedimentation below a level of significance.
    - Construction scheduling and implementation would incorporate the following efforts: (1) site grading and excavation activities would be minimized the rainy season to the maximum extent practicable; (2) existing vegetation would be preserved wherever feasible; and (3) grading and surface disturbance would be limited to the smallest feasible areas at any given time.
    - Erosion control and sediment catchment devices would be implemented in applicable portions of all disturbed areas, including (but not limited to) manufactured slopes, areas within or adjacent to drainage courses (e.g., bridge crossings along the proposed off-site roadway corridor), and storm drain inlets. Specific proposed measures include the following: fiber rolls, silt fences, straw bale barriers, sand- or gravelbag barriers, check dams, erosion control blankets, geotextiles, mats, bonded fiber matrix, hydroseeding, diversion dikes or channels, brow ditches, temporary sediment basins, and rip rap.
    - Dust generation and sediment tracking related to Project construction would be controlled through measures such as regular watering (or use of an approved dust palliative), street sweeping/vacuuming, and stabilization of construction ingress/egress points (e.g., through temporary paving or gravelling).
    - Construction-related solid wastes and material stockpiles would be properly contained (e.g., with impermeable berms and liners) and managed to preclude erosion and sedimentation.
    - Permanent landscaping would be installed in designated areas as soon as feasible after completion of grading and construction activities. Irrigation would be avoided and minimized to the extent practicable, and managed to avoid runoff and surface saturation.
    - Temporary slope down drains and/or permanent subdrains would be installed in applicable areas to minimize surface runoff and saturation.
    - The educational BMP component described in Section 4.1.1, Hydrology/Water Resources, would include information related to long-term erosion and sediment control, such as tips on maximizing landscape cover and mechanical removal of sediment from hardscape areas.

- A number of long-term treatment control BMPs, including extended detention basins, bio-filters, wet vaults and curb insert filters, would be installed in applicable locations as part of the Project design (refer to Section 4.1.1, Hydrology/Water Resources). The operation and regular maintenance of these facilities would contribute to the control of long-term erosion and sedimentation both within and downstream of the site. Applicable drainage outlet locations associated with the Proposed Project would also be equipped with energy dissipation devices, such as riprap aprons, to reduce flow velocities and downstream erosion potential.

## Geotechnical Issues

- Geotechnical studies conducted by Shepardson Engineering Associates, Inc. (Shepardson) for proposed off-site facilities (2005 and 2004a) and the Project site (2004b and 2002) note that a detailed geotechnical investigation (including sampling and laboratory analysis) would be conducted based on the approved Project grading plans, and that standard remedial measures would be implemented as part of the Proposed Project design if expansive soils are encountered. Specific measures identified to address these potential concerns include burial of expansive soils beneath deep fills, mixing of expansive soils with non-expansive material, and testing/monitoring to ensure that expansive soils are not located within approximately three feet of residential pad finish grades. In addition, the Proposed Project design would include standard geotechnical measures to ensure proper composition, application methodology, compaction and moisture content for Project fills (per ASTM and County Certification of Fill Compaction Report requirements).

## Hazards – Operation

- Vector Control at the WRF would include:
  - Screened material would be removed from the facility two to three times per week. The screening process would take place indoors, with screened material disposed of in a commercial dumpster that would be housed indoors until transported off site. Routine removal of material would minimize fly attraction/propagation.
  - Synthetic pesticides (e.g., methoprene and cyromazine), biochemical pesticides (i.e., Bti: *Bacillus thuringiensis israeliensis*), and/or biological controls (e.g., mosquito fish) would be applied to the wet weather storage area to control attraction/propagation of mosquitoes.
  - Sodium hypochlorite addition to the treated water will be increased for long-term storage, reducing attraction to flies and mosquitoes.
  - The storage ponds would be disked annually in the Fall to remove vegetation within and around the perimeter of the pond to limit rodent habitat.
- Manure management and vector control at the equestrian staging area would include:
  - The arena and holding pens would be cleaned weekly, with immediate disposal into a covered dumpster. The dumpster contents would be taken to an approved landfill once a week.
  - Weeds would be controlled to allow sun penetration and air movement to keep grounds dry.
  - Good drainage would be maintained to avoid standing water.

- Manure storage bins would be placed onto impervious surfaces with appropriate berming.
- A water spout would be provided for horse owners to use their own buckets to water their horses. Valves on all water devices would be leak-proof. No horse troughs (i.e., standing water) would be provided.
- Yellow jacket and fly traps would be installed if these insects become a problem.
- Measures would be included in the CC&Rs regarding manure management on residential lots that would allow horsekeeping.
- A Business Plan would be prepared to document the type of materials proposed for plant operations, as well as proposed storage and handling procedures and procedures for transport of materials, for submittal to the County Department of Environmental Health (DEH) Hazardous Materials Division (HMD).
- Existing on-site water wells would be abandoned in accordance with the California Well Standards as published by the California Department of Water Resources, with oversight provided by the DEH as part of the Project Site Assessment and Mitigation (SAM) Program.
- Existing septic systems within the Project site would be removed during the construction phase as part of the Project SAM Program, pursuant to direction by the DEH.
- Project construction activities would conform with applicable requirements of the NPDES General Groundwater Extraction Waste Discharge Permit, if appropriate (i.e., if discharge of extracted groundwater exceeds permit criteria).

#### **Fire Hazard – Construction and Operation**

- The Proposed Project would comply with all access, design, and fuel management policies as specified in the Uniform Fire Code, Article 9 and Appendix II-A, Section 16, as adopted, amended and titled “Consolidated Fire Code” by the RFD/CDF (County of San Diego 2001) as well as additional fire requirements specified by the Ramona Fire Prevention Bureau as included in Appendix O.
- All development projects must be designed in accordance with the Consolidated Uniform Fire Code (County of San Diego 2001) that would minimize fire hazard risks to persons and property. This includes compliance with brush management requirements around all structures. Other requirements related to fire prevention from the Ramona Fire Prevention Bureau include:
  - Newly created roads must have a minimum graded width of 28 feet with a minimum improved width of 24 feet and be constructed of asphaltic concrete.
  - The cul-de-sacs would be graded to a radius of 40 feet and would be improved with asphaltic concrete to a radius of 36 feet.
  - Fire hydrants would be installed every 1,000 feet measured from the intersection of existing roadways and new roadways. A minimum water flow of 2,500 gallons per minute (gpm) would be required.
  - If a minimum water flow of 2,500 gpm cannot be met, then an automatic sprinkler system must be installed in all residential dwelling units. Under this scenario only, spacing of fire hydrants may be allowed every 1,300 feet.

- County-approved street signs would be installed at every intersection created by the Proposed Project.
- “No Parking Fire Lane” signs would be required for all roads with a minimum improved width of 24 feet. The locations of these signs would be determined by the Ramona Fire Prevention Bureau.
- A fuel modification zone of 100 feet would be required around all structures (refer to Figure 1-7 through 1-10 and 1-34 of this EIR), except as modified where proposed homes would be adjacent to existing development.

#### **Flood Hazard – Construction**

- The Proposed Project design encompasses a number of measures to address potential on- and off-site flood hazards, including on-site drainage facilities (storm drains, etc.) designed to accommodate a 100-year storm event (per County guidelines), the use of extended detention basins and energy dissipators at appropriate locations to maintain pre-development flow levels, and the use of vegetated swales and surface or subdrains to increase infiltration and control flows in sloped areas. In addition, existing substandard drainage crossings of the proposed off-site road segments to be improved, would be upgraded at the time of these road improvements.

#### **Public Services – Construction and Operation**

- It is anticipated that expanded fire and police protection services would be funded from increased property taxes and other revenues to the County resulting from the Proposed Project as well as from other cumulative developments in the Ramona area that have contributed to the increased demands on fire and police protection services.
- The Proposed Project would dedicate land for a 10.6-acre charter high school site for future school development by the RUSD or other appropriate entity.
- The Proposed Project proposes to fully develop and dedicate an 8.3-acre local park and an 11.9-acre historic park (including the Montecito Ranch House).